IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: KONDO=7

In re Application of:	)	Art Unit: 1637
KONDO et al	)	Examiner: S. Chuddar
Appln. No.: 09/830,652	)	Washington, D.C.
Filed: April 30, 2001	)	December 2, 2002
For: METHOD FOR DETECTING GENE AFFECTED BY ENDOCRINE DISRUPTOR	)	Confirmation No.: 1863

RESPONSE TO RESTRICTION REQUIREMENT

Honorable Commissioner of Patents
Washington, D.C. 20231

Sir :

The Office Action of October 2, 2002, primarily in the nature of a restriction requirement, has been carefully reviewed. A petition and payment for a one month extension of time is attached hereto.

Restriction has been required between what the examiner deems to be two patentably distinct inventions, namely:

Group I, drawn to a method for detecting a gene that is influenced by an endocrine disruptor and presently comprising claims 1-6 and 10-11; and

Group II, drawn to a DNA array for detecting a gene influenced by an endocrine disruptor.

The examiner has also indicated that an election of species is required because the claims are held to be directed to the following patentably distinct species of Groups I and II:

a. a gene selected from 1-17 of claims 2 and 8; and

b. an endocrine disruptor selected from 1-9 of claims 4, 6 and 11.

Applicants hereby provisionally elect Group I, claims 1-6 and 10-11 and further elect the species of (1) a gene for a nuclear receptor or a gene related to nuclear receptor transcriptional coupling and (3) phenols as a endocrine disruptor with traverse. Claims 1-6 and 10-11 are all readable on the elected species with claims 1, 3, 5 and 10 being generic.

It is understood that, upon a determination that a generic claim is allowable, applicants will be entitled to consideration of additional species.

Traversal of this requirement is as follows:

The present invention defined by claim 1 reads:

1. A method for detecting a gene that is influenced by an endocrine disruptor, characterized in which the method comprises:

> preparing a nucleic acid sample containing mRNAs, or cDNAs therefor, derived from a cell, a tissue or an organism which has been exposed to a sample containing an endocrine disruptor;

hybridizing the nucleic acid sample with a DNA array onto which genes which are potentially influenced by the endocrine disruptor or DNA fragments derived from the genes which are potentially influenced by the endocrine disruptor are immobilized; and

selecting a gene that is influenced by the endocrine disruptor by comparing the results with results for a nucleic acid sample prepared using a control sample.

As described in the Summary of Invention section, the present inventors have developed a rapid method for detecting simultaneously with high sensitivity many types of genes that are influenced by endocrine disruptors. The present inventors have found a method for detecting endocrine disruptors using a DNA array onto which said genes or fragments thereof are immobilized. Furthermore, the present inventors have constructed a method for detecting a substance that potentially causes endocrine disruption. In other words, the present invention is directed to a method for detecting a potential endocrine disruptor of which the endocrine-disrupting activity is unknown using a DNA array onto which many types of genes of which the expression is potentially influenced by the endocrine disruptors are immobilized. The present invention should not be construed as a method for detecting one specific gene influenced by one specific endocrine disruptor. Thus, applicants do not believe that it is appropriate to limit the

combination of the gene and the endocrine disruptor used in the claimed method to one specific combination.

Favorable consideration is respectfully requested.

Respectfully submitted,

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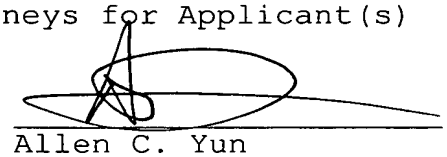
By: 
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